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09/768,993	01/24/2001	Michael Charles Findley	OAO-0001	4195

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EXAMINER

JARRETT, SCOTT L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,993

Applicant(s)

FINDLEY ET AL.

Examiner

Scott L. Jarrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities:
 - the disclosure refers to Figure 3 as a screen shot of a home page when the intended reference is to the block/system diagram of the system management tool as disclosed (Page 3, Line 7; Page 6, Line 1);
 - elements 86, 88 and 90 of Figure 3 are not fully disclosed as no details are provided as to the purpose of the elements or the definition of the labels ESR, PDMS (formerly MIDIS) or RAMES; and
 - elements 88 and 90 of Figure 3 are improperly labeled and/or referenced. The elements are labeled and drawn as databases in Figure 3 but referred to as tools in the specification (Page 6, Line 16).Appropriate correction is required.

Abstract

3. The abstract of the disclosure is objected to because it does not clearly define and concisely define the invention as claimed.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent

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is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Several essential subsystems of the system management tool are not clearly described including the evaluation, corrective action and assessment and analysis systems. In each subsystem the disclosure does not describe the method, process steps or functionality provided by these systems to allow one of ordinary skill in the art to make and/or use the claimed invention.

In considering the corrective action system it is not clear as to how the system determines when and if to take corrective action or what steps or methods would constitute a corrective action. Corrective actions could potentially be triggered by any of a plurality of means and involve a vast array of potential corrective actions. For example a corrective action for a web server might be to reset (physically or virtually) the server in order to restore its availability (responsiveness) to waiting service requests. Or a corrective action could be determining that an unauthorized person has attempted to access the system an unacceptable number of times therefore leading the system to close any open connections with the unauthorized person or system.

In considering the evaluation system it is not clear as to what parameters, metrics, systems, components or devices are to be evaluated as part of the system management tool. Further it is not clear as to the evaluation method (real-time, dynamic, statistical, heuristic or the like) is to be used in evaluating the before mentioned items or the evaluation criteria to be used as part of the evaluation process.

In considering the assessment and analysis system (tool) it is not clear as to what parameters, metrics, systems, components or devices are to be assessed or analyzed as part of the system management tool. Further it is not clear as to the assessment or analysis method is to be used in assessing or analyzing the before mentioned items.

6. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding Claim 1-20 the specification does not reasonably provide enablement for the evaluation, assessment and analysis or corrective action systems. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Regarding Claims 1 and 10 the disclosure fails to state or teach one of ordinary skill in the art the best mode (by hand, computer or like device) for measuring a corrective action. Without this disclosure one skilled in the art would be unable to practice the invention without undue experimentation.

Regarding Claims 19 the disclosure fails to state or teach one of ordinary skill in the art the best mode (by hand, computer or like device) for selecting a set of unstable metrics. Without this disclosure one skilled in the art would be unable to practice the invention without undue experimentation.

7. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: evaluation system, corrective action system, assessment, analysis system or tool, unstable metric, PDMS, MIDIS and ESR.

Appropriate correction is required.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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9. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite and failing to point out and distinctly claim the subject matter which the applicant regards as the invention.

The examiner interpreted tool to mean software per se.

Regarding Claim 2 the disclosure does not clearly define the phrase "cut and paste functions." The phrase cut and paste functions as claimed can read to include a plurality of concepts including but not limited to: the ability to cut and paste data/information, the ability to share code, the ability to share macros or any a plurality of vastly different definitions thereby making the term "cut and paste functions" as claimed vague and indefinite. Examiner read cut and paste functions to mean any of the definitions discussed above.

Regarding Claim 19 and 20 the disclosure does not clearly define the phrase "unstable metric." The phrase unstable process as claimed can read to include a plurality of concepts including but not limited to: varying over a specified period of time (dynamic), changing sharply for unexplained or unknown reason(s), likely to change or any one of a plurality of vastly different definitions thereby making the term "unstable metric" as claimed vague and indefinite. Examiner interpreted unstable metric as being defined as a metric which varies over time (dynamic).

Regarding Claim 20, claim 20 is indefinite as to scope in the use of the term "may" in the phrase "may have process problems." Claim 20 is therefore rejected as being vague and indefinite.

Claim Rejections - 35 USC § 101

10. Claims 1-8 and 14-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Software, programming, instructions or code not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in a computer. When such descriptive material is recorded on some computer-readable medium it becomes

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structurally and functionally interrelated to the medium and will be statutory in most cases.

Furthermore, software, programming, instructions or code not claimed as being computer executable are not statutory because they are not capable of causing functional change in a computer. In contrast, when a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer and the program, and the computer is capable of executing the program, allowing the program's functionality to be realized, the program will be statutory.

Regarding Claims 1-8 merely recite descriptive material (software) per se. Claims 1-8 are therefore deemed to be directed to non-statutory subject matter where there is no indication that the proposed software is recorded on computer-readable medium and/or capable of execution by a computer. Examiner suggests that the applicant incorporate into Claims 1-8 language that the proposed software is recorded on computer-readable medium and capable of execution by a computer to overcome this rejection.

Regarding Claims 9-13 and 14-20 for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention merely states the subsystem components comprising a system management tool and providing options to invoke the system management tool

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but does not produce a tangible result. The claimed invention, as a whole, is not within the technological art as explained above claims 9-13 and 14-20 are deemed to be directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 2, 6-8 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer et al., An Integrated Distributed Systems Management Architecture (1993).

Regarding Claim 1 Bauer et al. teach a system management tool for managing distributed network services and devices (network management), system services and resources (systems management) and user applications (application management; Page 27 Column 2, Paragraph 1). Bauer et al. further teaches a system management tool comprising:

- a plurality of input systems at the network, system and application levels of an enterprise system (Monitoring Service, Section 2.1.1 Page 28; Figure 1, Page 31);

- an electronic library (information repository, data repository) connected to the input system and including a process diagram for modeling a system (Monitoring Service, Section 2.1.1 Page 28; Information Repository Service, Section 2.1.4 Pages 29-30; Management Information Repository, Paragraph 1, Page 32; Section 2.2. Modeling and Simulation Tools, Page 30; Figure 3, Page 37);

- an evaluation system connected to the electronic library (Control Service, Section 2.1.2, Page 28; Monitor and Control Tools, Section 2.2, Page 30);

- a corrective action system connected to the evaluation system (Control Service, Section 2.1.2, Page 28; Configuration Service, Section 2.1.3 Pages 28-29; Monitor and Control Tools, Section 2.2, Page 30; Monitoring and Control Subsystems, Page 32);
and

- an assessment and analysis system connected to the corrective action system, the assessment and analysis system measuring a corrective action (Information Repository Service, Section 2.1.4, Paragraph 2, Page 29; Analysis and Report Tools, Section 2.2, Page 30; Figure 1, Application Layer; Performance Analysis Tool, Figure 3, Page 37).

Regarding Claim 2 Bauer et al. teach a method for generating reports from the plurality of elements and subsystems of the system management tool (Figure 1, Application Layer, Page 31; Section 2.2 Management Tools, Analysis and Report Tools, Page 30) and for visually expressing report queries (functions; Section 4.4) and

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browsing and editing for working with graph-like representation of data referred to as hygraphs.

Regarding Claim 6 Bauer et al. teach a system management tool wherein the subsystems collect and utilize a plurality of metrics (data, information, static information, dynamic information; Information Repository Service, Section 2.1.4 Pages 29-30) and associated thresholds (define criteria conditions so that when these conditions are met an appropriate action can be triggered automatically; Monitoring Service, Section 2.1.1, Paragraph 2, Page 28).

Regarding Claim 7 Bauer et al. teach a system management tool that includes a graphing system (visualization, reports, report generation; Figure 1, Application Layer, Page 31) for displaying a plurality of reports, data and information related to the monitoring, analysis and management of the enterprise system (Management Tools, Section 2.2 Visualization and Browser tools, Page 30).

Regarding Claim 8 Bauer et al. teach a simulation tool for modeling and determining potential system performance and/or capabilities (forecast tool, Management Tools, Section 2.2, Page 30).

Regarding Claim 14-16 Bauer et al. teach a system management tool having a three-tiered client server architecture (Figure 1, Page 31) comprising network, systems

and application layers. A three-tiered system is defined as having a client-server architecture in which the user interface, business logic and data storage are developed and maintained in separate layers (modules) and further wherein computer programs, components or other such devices are categorized as either clients or servers. The client making service requests from another program, the server, which fulfills the requests providing a convenient way to interconnect distributed programs or systems.

Bauer et al. teach the transmission and servicing of requests over a three-tiered system management tool connected over a network (Figure 1, Page 31; Figure 2, Page 34; Figure 3, Page 37). These requests and subsequent responses provide a means for receiving, viewing, selecting and invoking a plurality of features, tools or systems related to the system management tool. Further Bauer et al. teach the viewing, analyzing, utilizing, reporting and/or entering data/information into the system as discussed above.

Regarding Claim 17-19 Bauer et al. teach a system management tool which utilizes a plurality of data/information as discussed above (Monitoring Service, Section 2.1.1, Paragraph 2, Page 28). Bauer et al. further teaches the visualization (display) and selection of a plurality of data and information (metrics) relevant to the system management tool as discussed above, for any of a plurality of reasons (analysis, reporting, review, assessment) including but not limited to metrics that exceed a threshold, are unstable, forecasting or any of a plurality of means for categorizing,

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quantifying or filtering those metrics (Control Services, Section 2.1.1, Paragraph 1, Page 28).

Regarding Claim 20 Bauer et al. teach a system management tool wherein the subsystems collect and utilize a plurality of metrics (dynamic information; Information Repository Service, Section 2.1.4 Pages 29-30) as discussed above. More specifically Bauer et al. teaches unstable metrics, which may exist for a plurality of reasons.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3-5 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al., An Integrated Distributed Systems Management Architecture (1993) in view of Muller N., Web-accessible Network Management Tools (1997).

Regarding Claim 3-5 and 13 Bauer et al. teach the three-tiered system management tool providing browsing capabilities and utilizing the Internet as discussed above (Figures 1-3, Pages 31, 34, 37).

Bauer et al. is silent on accessing the system management subsystems or information through the use of interactive links (hyperlinks).

Muller teaches the prevalence of web-based enterprise (system) management tools and standards which enable enterprise systems and components to be configured, monitored, analyzed and reported on utilizing Internet technologies (Paragraphs 1 and 2, Page 288; Figures 1-3; WebCast, Page 290; NetScout, Page 290-291; OpenView Professional Pages 291-292). Muller further teaches accessing the system

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management tool and related information via a web-based interface such interfaces inherently consisting of Internet browsers that are used for displaying, searching and navigating the hyperlinked (interactive links) documents and/or applications. The use of Internet technologies providing increased usability, reduced cost and geographic independence (Paragraph 2, Page 288).

It would have been obvious to one skilled in the art at the time of the invention to modify the system management tool as taught by Bauer et al. with the use of Internet technologies including but not limited the use of interactive links to access or view subsystems or system information/data in view of the teachings of Muller thereby benefiting from increased usability, reduced cost and geographic independence (Paragraph 2, Page 288).

Regarding Claims 9-12 Bauer et al. teach a system management tool comprising an electronic library (information repository), an evaluation system (monitor, control and report systems), a corrective action system (monitor and control systems), assessment and analysis system, process diagram and report generating system as discussed above. Bauer et al. further teaches the use of browser tools as discussed above and an access control system (authorized users, Control Service, Section 2.1.2, Page 28).

Bauer et al. does not expressly teach the use of a web browser system.

Muller teaches web-based enterprise (system) management tools that enable enterprise systems and components to be configured, monitored, analyzed and reported on via Internet technologies as discussed above (Web Server, Web Browser Figure 4, Page 295). The use of Internet technologies providing increased usability, reduced cost and geographic independence (Paragraph 2, Page 288).

It would have been obvious to one skilled in the art at the time of the invention that the system management tool as taught by Bauer et al. would have benefited from the increased usability, reduced cost and geographic independence provided for by the use of Internet technologies including but not limited to web browser systems in view of the teachings of Muller (Paragraph 2, Page 288).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ries et al., U.S. Patent No. 6,061,724, teaches a method for modeling systems in order to measure performance and quality of service. More generally Ries et al. teaches a system management tool comprising an input system, electronic library, process diagram, evaluation system, analysis system, forecasting tool, reporting system and the use of process metrics.

- Eshghi et al., U.S. Patent No. 5,893,083, teaches a system management tool comprising an electronic library, corrective action system, evaluation system, analysis system and process diagram.

- Manghirmalani et al., U.S. Patent No. 5,819,028, teaches a system management tool for indicating the health of a system comprising an input system, process diagram, corrective action system, evaluation system, process metrics, thresholds, report system, browser system, graphing system, a plurality of interactive links and data dashboards.

- Yemini et al., U.S. Patent 5,528,516, teaches a system management tool comprising an input system, evaluation system, corrective action system, reporting system, sensors, and an electronic library. More specifically Yemini et al. teaches a method for determining the root cause of problems in complex systems based on observable events.

- Malin et al., U.S. Patent 4,965,743, teaches a system management tool for modeling and simulation of both normal and faulty qualitative behavior of systems utilizing discrete event modeling and simulation techniques. Malin et al. further teaches the use of a central repository, electronic library, process model, analysis system and forecasting tool.

- Fuller W., Network Management Using Expert Diagnostics, teaches a system management tool that considers accounting and other organizational problems (network management) comprising of an input system, evaluation system, corrective action system, browser system, process diagram, forecasting tool and the use of a specific system management tool NetCoach.

- Keller et al., A Pattern System for Network Management, Interfaces teaches the middleware necessary to facilitate the information/data collection, analysis, reporting and management of enterprise systems.

- Micromuse, NetCool Suite white paper teaches a system management tool, NetCool, comprising: an input system, electronic library, browser system, evaluation system, reporting system, corrective action system, sensors, central data repository, and process diagrams. The system management tool insuring enterprises have the ability to meet committed level of service.

- Hansen et al., Reliability, Availability, and Maintainability Expert Systems (RAMES), teaches a reliability, availability and maintainability decision support system that enables users to analyze, asses, evaluate, simulate and take corrective actions to insure optimal system performance.

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- Stanford Telecom, Proactive ATM Network Management for Multi-Vendor Environments NetCoach, teaches a system management tool for identifying unstable processes and taking corrective action. Stanford Telecom further teaches the use of reports, process metrics and thresholds presented via a browser system for the evaluation and analysis of system performance.

- Vogt G., Munich Network Management Team, teaches a plurality of system management tools, products, research, articles and standards available to those skilled in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (703) 305-0587. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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